

**P002** Probing the structure of *Saccharomyces cerevisiae* RNase MRP  
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In yeast, RNase MRP, a eukaryotic ribonucleoprotein enzyme involved in pre-rRNA processing, possesses 9 (possibly 10) protein subunits and a putatively catalytic RNA subunit, structurally related to that of RNase P. Eight proteins are also RNase P subunits. Here, MRP RNA has undergone structure probing, mutagenesis and UV melting analysis, resulting in an alternate secondary structure model. The model matches a previous one, with the exception of an additional stem that occupies the equivalent position to the P7 stem of P RNA. Inclusion of the P7-like stem in yeast MRP RNA confers on it greater similarity to the core P RNA structure and better delimits the MRP specificity domain. Importantly, P7-like stem formation is not required for the pre-rRNA processing or essential function of RNase MRP. Nonetheless, *in vivo* data indicate that the stem can form. Our alternate MRP RNA structure is clearly not part of the active enzyme but would be the more stable structure in the absence of protein subunits. It may, therefore, represent a valid intermediate species in RNase MRP assembly. RNA-protein and protein-protein interactions in the ribonucleoprotein complex are also under investigation and an interactions map and cartoon model for RNase MRP are presented.